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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.        | CONFIRMATION NO.       |
|--|-------------|----------------------|----------------------------|------------------------|
| 09/919,045   | 07/31/2001  | Ramesh Nagarajan     | 15-12                      | 4258                   |
| 32498 7590 09/20/2007<br>CAPITOL PATENT & TRADEMARK LAW FIRM, PLLC<br>ATTN: JOHN CURTIN<br>P.O. BOX 1995<br>VIENNA, VA 22183 |             |                      |                            |                        |
|  |             |                      | EXAMINER<br>PHAM, BRENDA H |                        |
|  |             |                      | ART UNIT<br>2616           | PAPER NUMBER           |
|  |             |                      | MAIL DATE<br>09/20/2007    | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|  |                                |  |                         |  |
|--|--------------------------------|--|-------------------------|--|
| <p align="center"><b>Office Action Summary</b></p> | <b>Application No.</b>         |  | <b>Applicant(s)</b>     |  |
|  | 09/919,045                     |  | NAGARAJAN ET AL.        |  |
|  | <b>Examiner</b><br>Brenda Pham |  | <b>Art Unit</b><br>2616 |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 June 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-14 is/are rejected.
- 7) ☐ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)<br>2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)<br>3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____<br>5) <input type="checkbox"/> Notice of Informal Patent Application<br>6) <input type="checkbox"/> Other: _____ |
|--|--|

**DETAILED ACTION**

1. Claims 1-14 are pending in the application.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Regarding claim 7, the phrase "wherein the like resource" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

4. Claim 5 recites the limitation "wherein at least two predefined sequences" in line 1-2. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-4, 6-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (US 6,289,096 B1) in view of Calon (US 6,256,295 B1).

Regarding claims 1-2, 6, 8-9 and 12, Suzuki discloses a method for use in a node of a network, the method comprising the steps of:

receiving a connection request (step 30 of figure 5); and

assigning a link resource for connecting the node the node to a neighboring node over a link between the node and the neighboring node by using at least one predefined sequence (see figure 3).

Suzuki does not teach wherein the at least one predefined sequence resulted from a negotiating with the neighboring node prior to receipt of the request. This claimed limitation is well known in the art and is teach by Callon.

Callon teaches, "Routing or switching engine 65 is coupled to a link state database 70, a tentative ("TENT") database 75, a PATHS database 80, and a forwarding database 85. As a router or switch, node 50 exchanges link state packet via its various ports with every other connected node of network 10, and the link state database 70 stores the link state packets received from all nodes in the network Each node of network 10 generates its own link state packet that includes information regarding its neighbor nodes including the identity of each neighbor node and the cost associated with reaching each neighbor node. When node 50 has received link state packet from every node of network 10. node 50 will have a complete map of the topology of the network stored in link state database 70. Routing engine 65 may use the information stored in link state database 70 to determine paths between node50 and any other node of the network." (see col. 4, line 13-55).

It would have been obvious to those having ordinary skill in the art at the time of the invention was made to implement the step negotiating with the neighboring node prior receipt of the connection request to collecting routing information for calculating the predefined routing sequence.

Note: Examiner does not give patentable weight to limitation "to avoid contention associated with the request". "to avoid contention associated with the request" is a statement of intended use or field of use. Such language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation.

Regarding claims 3-4, 7 and 10-11, 13-14. Suzuki in view of Callon teach a call routing method using prioritized source-destination routes in a communication network in which nodes are interconnected by links, all possible routes between a source node and a destination node are determined such that each of the routes is formed of at least one of the links. Suzuki does not teach the method is implemented in an optical transport network.

It is well known that when a large network deploys a new architecture, it is highly desirable to reuse the existing node sites and physical routes as much as possible due to the costs of land, equipment and construction. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to implement the method of Suzuki in an optical transport network

***Allowable Subject Matter***

7. Claim 5 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: the prior art made of record fails to teach or fairly suggests in combination wherein the link resources are selected from the group consisting of wavelengths, SONET-based tributaries, SDH-based tributaries, and PDH-based tributaries.

The prior art made of record fails to teach in combination wherein at least two predefined sequences, a first sequence and a second sequence, are determined from the negotiation and the assigning step includes the steps of:

Determining if the connection request is a bi-directional request or a unidirectional request;

If a bi-directional request, selecting a first table, the first table comprising link resource arranged in accordance with the first sequence;

If a unidirectional request selecting a second table, the second table comprising link resources arranged in accordance with the second sequence; and

selecting the link resource from the selected table for assignment to the connection request and wherein the link resources comprise wavelengths of the node associated with the link.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Phelps et al (US 2002/0118636 A1) discloses mesh network protection using dynamic ring.

Spiegel et al (US 5,649,108) discloses combined progressive and source routing control for connection oriented communications networks.

Lu et al (US 2002/0191247 A1) discloses fast restoration in optical mesh network.

### Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brenda Pham whose telephone number is (571) 272-3135. The examiner can normally be reached on Monday-Friday from 9:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild, can be reached on (571) 272-2092

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

September 12, 2007  
Brenda Pham



**BRENDA PHAM**  
**PRIMARY EXAMINER**